

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method of georeferencing a raster map, comprising:
  - displaying a first map in one area of a display, ~~[[said]]~~ the first map being a digital raster map having a plurality of pixel locations;
  - displaying a second map in a second area of the display, the second map being a georeferenced map having associated geographic coordinates and displaying that ~~displays~~ at least a portion of an identical geographic region displayed in the raster map;
  - receiving a first point on the first map~~[[;]]~~ and ~~receiving~~ a corresponding first point on the second map, wherein the first point on the first map and the corresponding first point on the second map represent identical locations;
  - receiving a second point on the first map~~[[;]]~~ and ~~receiving~~ a corresponding second point on the second map, wherein the second point on the first map and the corresponding second point on the second map represent identical locations;
  - receiving pixel coordinates for the first point on the first map and the second point on the first map;
  - receiving geographic coordinates for the first point on the second map and the second point on the second map; and
  - automatically computing a georeferencing function that ~~specifies a relationship~~ converts between the pixel coordinates of the first map and the geographic coordinates

of the second map, wherein the georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map, and assigns corresponding geographic coordinates to any one of the plurality of pixel locations.

2. (Previously Presented) The method of claim 1 further comprising receiving a verification that a point on the first map correctly matches geographically with a corresponding point on the second map.

3. (Previously Presented) The method of claim 1 wherein the first map is a portion of the second map.

4. (Previously Presented) The method of claim 1 further comprising assigning a longitude and latitude for at least one of the first point and the second point on the first map based upon the geographic coordinates read for at least one of the first point and the second point on the second map.

5. (Previously Presented) The method of claim 1 wherein at least one of the first point and the second point on the first map has a known longitude and latitude.

6. (Previously Presented) The method of claim 1 further comprising assigning geographic coordinates to an additional point received on the first map using the computed georeferencing function.

7. (Canceled)

8. (Previously Presented) The method of claim 1 further comprising receiving an additional point on the first map and automatically marking a corresponding additional point on the second map as calculated by the computed georeferencing function.

9. (Previously Presented) The method of claim 8 further comprising receiving a correction of the additional point marked on the second map.

10. (Previously Presented) The method of claim 1 wherein an approximate georeferencing function is predefined.

11. (Currently Amended) A computer readable medium containing instructions executable by a computer to perform a method for georeferencing a raster map, the method comprising:

displaying a first map in one area of a display, ~~[[said]]~~ the first map being a digital raster map having a plurality of pixel locations;

displaying a second map in a second area of the display, the second map being a georeferenced map having associated geographic coordinates and displaying that displays at least a portion of an identical geographic region displayed in the raster map;

receiving a first point on the first map[[:]] ~~and receiving~~ a corresponding first point on the second map, wherein the first point on the first map and the corresponding first point on the second map represent identical locations;

receiving a second point on the first map[[:]] ~~and receiving~~ a corresponding second point on the second map, wherein the second point on the first map and the corresponding second point on the second map represent identical locations;

receiving pixel coordinates for the first point on the first map and the second point on the first map;

receiving geographic coordinates for the first point on the second map and the second point on the second map; and

automatically computing a georeferencing function that ~~specifies a relationship~~ converts between the pixel coordinates of the first map and the geographic coordinates of the second map, wherein the georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map, and assigns corresponding geographic coordinates to any one of the plurality of pixel locations.

12. (Previously Presented) The computer readable medium of claim 11 wherein the contents of the computer readable medium are also capable of verifying that a point on the first map correctly matches geographically with a corresponding point on the second map.

13. (Canceled)

14. (Previously Presented) The computer readable medium of claim 11, wherein the contents of the computer readable medium are also capable of receiving an additional point on the first map and automatically marking a corresponding additional point on the second map as calculated by the computed georeferencing function.

15. (Previously Presented) The computer readable medium of claim 11, wherein the contents of the computer readable medium are also capable of assigning a longitude and latitude for at least one of the first point and the second point on the second map.

16 -20. (Canceled)

21. (Previously Presented) The method of claim 1, the method further comprising:

receiving an additional point on the first map;

receiving a corresponding additional point on the second map;

receiving geographic coordinates for the additional point on the second map; and

recomputing the georeferencing function.

22. (Previously Presented) The computer readable medium of claim 11 wherein the contents of the computer-readable medium are also capable of assigning

geographic coordinates for an additional point received on the first map using the computed georeferencing function.

23. (Canceled)

24. (Previously Presented) The method of claim 1 further comprising receiving an additional point on the second map and automatically marking a corresponding additional point on the first map as calculated by the computed georeferencing function.

25. (Currently Amended) A method of georeferencing a raster map, comprising:

displaying a first map in one area of a display, the first map being a digital raster map having a plurality of pixel locations;

displaying a second map in a second area of the display, the second map being a georeferenced map having associated geographic coordinates and displaying that displays at least a portion of an identical geographic region displayed in the raster map;

receiving two or more point-pairs, each point-pair consisting of a point from the first map and a corresponding point from the second map, wherein the point-pairs are chosen such that corresponding points of each point-pair refer to the same geographic location; and

automatically computing, ~~with each additional point-pair received after the first point-pair,~~ a georeferencing function for the first map that expresses a mathematical

relationship based on the two or more point-pairs and converts between pixel coordinates of an arbitrary point on the first map and corresponding geographic coordinates on the second map.

26. (Previously Presented) The method of claim 25, wherein receiving two or more point-pairs ceases once a quality of the computed georeferencing function is determined to be adequate.

27. (Previously Presented) The method of claim 1, wherein the first map and the second map are displayed in the same scale.

28. (New) A data processing system for georeferencing a raster map, the data processing system comprising:

a display; and

a processor in communication with the display, wherein the processor executes instructions to:

display a first map in one area of the display, the first map being a digital raster map having a plurality of pixel locations;

display a second map in a second area of the display, the second map being a georeferenced map having associated geographic coordinates and displaying at least a portion of an identical geographic region displayed in the raster map;

receive a first point on the first map and a corresponding first point on the second map, wherein the first point on the first map and the corresponding first point on the second map represent identical locations;

receive a second point on the first map and a corresponding second point on the second map, wherein the second point on the first map and the corresponding second point on the second map represent identical locations;

receive pixel coordinates for the first point on the first map and the second point on the first map;

receive geographic coordinates for the first point on the second map and the second point on the second map; and

automatically compute a georeferencing function that converts between the pixel coordinates of the first map and the geographic coordinates of the second map, wherein the georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map, and assigns corresponding geographic coordinates to any one of the plurality of pixel locations.